

Now that the invention has been described,

WHAT IS CLAIMED IS:

1. A lighting device for producing a light that simulates the flicker of a candle flame, said lighting device comprising:

at least a first, second and third light source wherein the light sources are arranged in an approximately vertical stack such that the first light source is lower in the vertical stack than the second light source and the second light source is lower in the vertical stack than the third light source;

a power circuit associated with each of said light sources for producing a power signal for its associated light source wherein the duty cycle of the power signal provided to the first light source is greater than the duty cycle of the power signal provided to the second light source and the duty cycle of the power signal provided to the third light source is less than the duty cycle of the power signal provided to the second light source and wherein the duty cycle of one power signal is independent of the duty cycle of the other power signals.

2. The lighting device of claim 1 further comprising a semi-transparent housing for enclosing the light sources wherein the transparency of the housing is such that the light from the individual light sources is visible but the individual light sources themselves are not.

3. The lighting device of claim 1 wherein the power circuits for the second and third light sources include a resistor and a capacitor such that a resistance value of the resistor and a capacitance value of the capacitor determine a frequency at which the power signal produced by the respective power circuit oscillates.

4. The lighting device of claim 1 wherein the power circuits for the second and third light sources include a diode that alters the duty cycle of the power signals produced by the power circuits.

5. The lighting device of claim 1 further comprising a light sensor for turning the lighting device on when an intensity of the light detected by the light sensor falls below a predetermined level.

6. The lighting device of claim 1 wherein the lighting device is powered by a solar battery that is recharged by a solar power source.

7. The lighting device of claim 1 wherein the duty cycle of the power signal provided to the first light source is such that the first light source is always on.

8. The lighting device of claim 1 further comprising a container for containing the lighting device wherein the container has a base and a lid and wherein the lighting

device is attached to the lid.

9. A light that produces a light having a candle-like flicker, said light comprising:
a first light source positioned at a bottom of a vertical stack;
a second light source positioned in the vertical stack above said first light source;
a third light source positioned in the vertical stack above said second light source;
a first power circuit for producing a first power signal and providing said first power signal to said first light source;

a second power circuit for producing a second power signal having a duty cycle less than a duty cycle of said first power signal and providing said second power signal to said second light source; and

a third power circuit for producing a third power signal having a duty cycle less than said second power signal and providing said third power signal to said third light source;

wherein said second and said third power circuits have at least one resistor and one capacitor and a frequency of the power signal produced by the second and third power circuits is determined at least in part by its respective resistor and capacitor.

10. The light of claim 9 further comprising a translucent housing shaped like a candle flame that contains the first, second and third light sources.

11. The light of claim 9 wherein the first, second and third light sources further comprise light emitting diodes.

12. The light of claim 9 further comprising a solar panel and a rechargeable battery for providing power for the light.

13. The light of claim 9 further comprising a light sensor for turning the light on when a detected light intensity falls below a predetermined level.

14. The light of claim 9 wherein the second power circuit and the third power circuit further comprise a diode that alters the duty cycle of the respective power signals produced by the second and third power circuits.

15. The light of claim 9 wherein the duty cycle and frequency of the second power signal is independent of the duty cycle and frequency of the third power signal.

16. The light of claim 9 further comprising an outer housing having a base and a lid wherein components of the light are incorporated into the lid and the lid is configured to attach to the top of the base.

17. A method of producing a light having a candle-like flicker, said method

comprising:

arranging multiple light sources into an approximately vertical stack;

generating a relatively high duty cycle power waveform and providing said high duty cycle waveform to a lowest light source in said vertical stack;

generating an intermediate duty cycle waveform and providing said intermediate duty cycle waveform to a light source positioned in an intermediate location in said vertical stack;

generating a relatively low duty cycle waveform and providing said relatively low duty cycle waveform to a highest light source in said vertical stack;

wherein the duty cycle and frequency of said high duty cycle waveform, said intermediate duty cycle wave form and said low duty cycle waveform are independent of one another.

18. The method of claim 17 further comprising housing said multiple light sources in a translucent housing such that individual ones of said multiple light sources are not easily distinguishable through said housing.

19. The method of claim 17 wherein the steps of generating an intermediate duty cycle waveform and generating a relatively low duty cycle waveform further comprise setting an oscillation frequency of said intermediate duty cycle waveform and said relatively low duty cycle waveform with a resistive and capacitive circuit.

20. The method of claim 17 further comprising the step of using a diode to set a duty cycle of at least one of said waveforms.

21. The method of claim 17 further comprising the step of powering said light with a solar panel and associated rechargeable battery.

22. The method of claim 17 further comprising the step of turning off said light if a detected light intensity exceeds a predetermined level.

23. A device for producing a light having a candle like flicker, said device comprising:

a first light source oscillating between an off and an on state; and

a second light source oscillating between and on and an off state;

wherein the oscillation of the first light source is independent of the oscillation of the second light source.

24. The device of claim 23 wherein said first light source and said second light source further comprise light emitting diodes.

25. The device of claim 23 further comprising a translucent, candle-shaped

housing that surrounds the light sources.

26. The device of claim 23 wherein the oscillation of each light source is controlled by charging and discharging an associated resistive and capacitive circuit.

27. The device of claim 23 further comprising a fixture having a lid and a base wherein the light sources are attached to the lid and oscillation circuitry is contained in the lid and the lid is adapted to be attached to the top of the base.

28. The device of claim 23 wherein the first light source and the second light source are positioned within approximately one half inch of one another.

29. A device for producing a light having a candle like flicker, said device comprising:

a first light source that is in a visibly on state;

a second light source visibly oscillating between an on and an off state; and

a third light source visibly oscillating between an on and an off state;

wherein the oscillation of the second light source is independent of the oscillation of the third light source.

30. The device of claim 29 wherein the first light source and the second light

source are positioned within approximately one half inch of one another and the second light source and the third light source are positioned within approximately one half inch of one another.

31. The device of claim 29 wherein the first light source is positioned below the second light source and the second light source is positioned below the third light source.

32. The device of claim 31 wherein the third light source oscillates at a rate faster than the rate of oscillation of the second light source.

33. The device of claim 31 wherein the third light source oscillates with a duty cycle that is less than a duty cycle of the second light source.